

SAFETY DATA SHEET



OSPREY® XTRA HERBICIDE

Version 1.0 / USA
102000030357

1/12
Revision Date: 09/14/2018
Print Date: 12/06/2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name OSPREY® XTRA HERBICIDE

Product code (UVP) 84422045

SDS Number 102000030357

EPA Registration No. 264-1195

Relevant identified uses of the substance or mixture and uses advised against

Use Herbicide

Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-866-99BAYER (1-866-992-2937)

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Eye irritation: Category 2B

Labelling in accordance with regulation HCS 29CFR §1910.1200

Signal word: Warning

Hazard statements

Causes eye irritation.

Precautionary statements

Wash thoroughly after handling.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/ attention.

Hazards Not Otherwise Classified (HNOC)

No other hazards not otherwise classified.

No physical hazards not otherwise classified.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Mesosulfuron-methyl	208465-21-8	4.5
Thiencarbazone-methyl	317815-83-1	1.5
Mefenpyr-diethyl	135590-91-9	11.25
Sodium diisopropyl naphthalene sulphonate	1322-93-6	4.8
Sulfonated aromatic polymer, sodium salt	68425-94-5	24.0

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.
Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Rinse out mouth and give water in small sips to drink. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms	No symptoms known or expected.
Indication of any immediate medical attention and special treatment needed	
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable	High volume water jet

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Special hazards arising from the substance or mixture	In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)
Advice for firefighters	
Special protective equipment for firefighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Keep out of smoke. Fight fire from upwind position. Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.
Flash point	Not applicable
Auto-ignition temperature	170 °C / 338 °F
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosivity	Not explosive Regulation (EC) No. 440/2008, Annex, A.14

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid dust formation. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion Avoid dust formation by friction. Dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge. Keep

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away from heat and sources of ignition.

Hygiene measures

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.

Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from frost.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Mesosulfuron-methyl	208465-21-8	10 mg/m ³ (TWA)		OES BCS*
Thiencarbazone-methyl	317815-83-1	10 mg/m ³ (TWA)		OES BCS*
Mefenpyr-diethyl	135590-91-9	10 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection

Chemical resistant nitrile rubber gloves

Eye protection

Tightly fitting safety goggles

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.

Keep and wash PPE separately from other laundry.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	brown
Physical State	water-dispersible granules
Odor	odourless
Odour Threshold	No data available
pH	7.5 - 9.5 (1 %) (23 °C) (deionized water)
Vapor Pressure	No data available
Vapor Density (Air = 1)	No data available
Bulk density	0.62 g/ml (loose)
Evaporation rate	Not applicable
Boiling Point	Not applicable
Melting / Freezing Point	Not applicable
Water solubility	dispersible
Minimum Ignition Energy	Not applicable
Decomposition temperature	Stable under normal conditions.
Partition coefficient: n-octanol/water	Not applicable
Viscosity	Not applicable
Flash point	Not applicable
Auto-ignition temperature	170 °C / 338 °F
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosivity	Not explosive Regulation (EC) No. 440/2008, Annex, A.14
Other information	The product is capable of dust explosions. Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	
Thermal decomposition	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.

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Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	No data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes Ingestion, Eye contact, Skin contact

Immediate Effects

Eye Causes eye irritation.

Ingestion Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity LD50 (Rat) > 5,000 mg/kg

Acute inhalation toxicity LC50 (Rat) > 5.09 mg/l
Exposure time: 4 h
Determined in the form of a respirable fine dust.
highest concentration tested

Acute dermal toxicity LD50 (Rat) > 5,000 mg/kg

Skin corrosion/irritation Slight irritant effect - does not require labelling. (Rabbit)

Serious eye damage/eye irritation Irritating to eyes. (Rabbit)

Respiratory or skin sensitisation Non-sensitizing. (Mouse)
OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – repeated exposure

Mesosulfuron-methyl did not cause specific target organ toxicity in experimental animal studies.
Thiencarbazone-methyl did not cause specific target organ toxicity in experimental animal studies.
Mefenpyr-diethyl did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Mesosulfuron-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Thiencarbazone-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Mefenpyr-diethyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Mesosulfuron-methyl was not carcinogenic in lifetime feeding studies in rats and mice.
Thiencarbazone-methyl was not carcinogenic in a lifetime feeding study in rats. Thiencarbazone-methyl caused at high dose levels an increased incidence of tumours in mice in the following organ(s): urinary bladder. The tumours seen with Thiencarbazone-methyl were caused through the chronic irritation due to the presence of bladder stones.
Mefenpyr-diethyl was not carcinogenic in lifetime feeding studies in rats and mice.

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ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Mesosulfuron-methyl did not cause reproductive toxicity in a two-generation study in rats.
Thiencarbazon-methyl did not cause reproductive toxicity in a two-generation study in rats.
Mefenpyr-diethyl did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Mesosulfuron-methyl did not cause developmental toxicity in rats and rabbits.
Thiencarbazon-methyl did not cause developmental toxicity in rats and rabbits.
Mefenpyr-diethyl caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Mefenpyr-diethyl are related to maternal toxicity.

Further information

Only acute toxicity studies have been performed on the formulated product.
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)) > 100 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient mesosulfuron-methyl.

LC50 (Oncorhynchus mykiss (rainbow trout)) > 104 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient thiencarbazon-methyl.

LC50 (Oncorhynchus mykiss (rainbow trout)) 4.2 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient mefenpyr-diethyl.

LC50 (Cyprinus carpio (Carp)) 2.4 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient mefenpyr-diethyl.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) > 100 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient mesosulfuron-

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methyl.

EC50 (Daphnia magna (Water flea)) > 98.6 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient thiencazone-methyl.

EC50 (Daphnia magna (Water flea)) 20.9 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient mefenpyr-diethyl.

Toxicity to aquatic plants

IC50 (Pseudokirchneriella subcapitata (microalgae)) > 0.29 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient metsulfuron methyl.

IC50 (Navicula pelliculosa (Freshwater diatom)) > 74.9 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient mesosulfuron-methyl.

IC50 (Lemna gibba (gibbous duckweed)) > 0.001 mg/l
Growth rate; Exposure time: 7 d
The value mentioned relates to the active ingredient mesosulfuron-methyl.

NOEC (Lemna gibba (gibbous duckweed)) 0.00018 mg/l
The value mentioned relates to the active ingredient mesosulfuron-methyl.

IC50 (Pseudokirchneriella subcapitata (microalgae)) 1.017 mg/l
Growth rate; Exposure time: 72 h
The value mentioned relates to the active ingredient thiencazone-methyl.

IC50 (Lemna gibba (gibbous duckweed)) 0.00131 mg/l
Growth rate; Exposure time: 7 d
The value mentioned relates to the active ingredient thiencazone-methyl.

EC50 (Desmodesmus subspicatus (green algae)) 5.8 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient mefenpyr-diethyl.

EC50 (Navicula pelliculosa (Freshwater diatom)) 1.62 mg/l
Exposure time: 72 h
The value mentioned relates to the active ingredient mefenpyr-diethyl.

EC50 (Lemna gibba (gibbous duckweed)) 12 mg/l
Exposure time: 168 h
The value mentioned relates to the active ingredient mefenpyr-diethyl.

Biodegradability

Mesosulfuron-methyl:
Not rapidly biodegradable
Thiencazone-methyl:
Not rapidly biodegradable

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	Mefenpyr-diethyl: Not rapidly biodegradable
Koc	Mesosulfuron-methyl: Koc: 92 Thiencarbazone-methyl: Koc: 100 Mefenpyr-diethyl: Koc: 625
Bioaccumulation	Mesosulfuron-methyl: Does not bioaccumulate. Thiencarbazone-methyl: Does not bioaccumulate. Mefenpyr-diethyl: Bioconcentration factor (BCF) 232 Does not bioaccumulate.
Mobility in soil	Mesosulfuron-methyl: Moderately mobile in soils Thiencarbazone-methyl: Moderately mobile in soils Mefenpyr-diethyl: Slightly mobile in soils
Additional ecological information	No other effects to be mentioned.
Environmental precautions	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.
RCRA Information	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

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49CFR Not dangerous goods / not hazardous material

IMDG

UN number **3077**
Class **9**
Packaging group **III**
Marine pollutant **YES**
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MESOSULFURON-METHYL, THIENCARBAZONE-METHYL, MIXTURE)**

IATA

UN number **3077**
Class **9**
Packaging group **III**
Environm. Hazardous Mark **YES**
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MESOSULFURON-METHYL, THIENCARBAZONE-METHYL, MIXTURE)**

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 264-1195

US Federal Regulations

TSCA list

Sodium diisopropylnaphthalene sulphonate 1322-93-6
Sulfonated aromatic polymer, sodium salt 68425-94-5
Calcium carbonate 1317-65-3
Silica, amorphe 7631-86-9
Polyethylene-polypropylene copolymer 9003-11-6

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

Not applicable.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

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US State Right-To-Know Ingredients

Calcium carbonate	1317-65-3	MN, RI
Silica, amorphe	7631-86-9	CA, MN
Sodium hydroxide	1310-73-2	CA, CT, IL, MN, NJ, RI

EPA/FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

Signal word: Caution!

Hazard statements: Harmful if swallowed.
Causes moderate eye injury.
Avoid contact with skin, eyes and clothing.
Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove and wash contaminated clothing before re-use.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

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NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: New Safety Data Sheet.

Revision Date: 09/14/2018

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